~~Claims~~ I CLAIM

1. An injector for a common rail injection system for internal combustion engines, having a valve control chamber (11), defined by the end face (33) of a nozzle needle (21), in which the fuel inlet takes place via an inlet throttle (9) and the fuel outlet takes place via an outflow throttle (13), and there is a closing piston (34) in the valve control chamber (11), characterized in that the closing piston (34) has a larger diameter than the nozzle needle (21).

2. The injector of claim 1 or 2, characterized in that the closing piston (34) is disposed between the inlet throttle (9) and outflow throttle (13) on one side and the nozzle needle (21) on the other.

3. The injector of claim 1, characterized in that the closing piston (34) has a first bore (35), extending between its end faces (45, 47).

4. The injector of one of the foregoing claims, characterized in that the closing piston (34) has a throttle bore extending between its end faces (45).

5. The injector of one of the foregoing claims, characterized in that a stroke stop (37) is provided in the valve control

chamber (11) and limits the displaceability of the closing piston (34) in the direction of the inlet throttle (9) and the outflow throttle (13).

6. The injector of one of the foregoing claims, characterized in that a closing spring (40) is present, which is braced against the closing piston (34) and the nozzle needle (21).

7. The injector of claim 6, characterized in that the closing spring (40) is disposed in the valve control chamber (11).

8. The injector of claim 6 or 7, characterized in that the closing spring (40) is braced against the end face (33) of the nozzle needle (21).

9. The injector of one of the foregoing claims, characterized in that the nozzle needle (21) has a pin (38) protruding in the direction of its longitudinal axis and past its end face (33).

10. The injector of claim 9, characterized in that the first bore (35) of the closing piston (34) is closable by the pin (38).

11. The injector of claim 10, characterized in that the first bore (35) of the closing piston (34) has a sealing seat (39) on the face end toward the nozzle needle (21), and the pin (38) has a corresponding sealing cone.

12. The injector of one of the foregoing claims, characterized in that the inlet throttle (9) and/or the outflow throttle (13) is disposed in a housing (29) of the injector.

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